



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0373; Project Identifier MCAI-2020-01352-R; Amendment 39-21668; AD 2021-16-06]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.a. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2020-19-11 for certain Leonardo S.p.a. Model A119 and AW119 MKII helicopters. AD 2020-19-11 required repetitive borescope inspections of the 90-degree tail rotor gearbox (TGB) and depending on the inspection results, removing the TGB from service. This AD was prompted by the determination that additional parts may be susceptible to the unsafe condition. This AD retains the inspection requirements of AD 2020-19-11, and revises the compliance time and applicability. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Leonardo S.p.A. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-225074; fax +39-0331-229046; or at <https://customerportal.leonardocompany.com/en-US/>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the

availability of this material at the FAA, call (817) 222-5110. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0373.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0373; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the European Union Aviation Safety Agency (EASA) AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Rao Edupuganti, Aerospace Engineer, Dynamic Systems Section, Technical Innovation Policy Branch, Policy & Innovation Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email rao.edupuganti@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2020-19-11, Amendment 39-21254 (85 FR 59404, September 22, 2020) (AD 2020-19-11). AD 2020-19-11 applied to Leonardo S.p.a. Model A119 and AW119 MKII helicopters with TGB part number (P/N) 109-0440-06-101 or P/N 109-0440-06-105 having serial number (S/N) 167, 169 through 172 inclusive, 215 through 225 inclusive, 227, 230, 232, 233, AW268, K3, K16, M47, or L29, installed. The NPRM published in the *Federal Register* on May 21, 2021 (86 FR 27538). In the NPRM, the FAA proposed to retain certain requirements of AD 2020-19-11, revise the compliance time for the repetitive inspections from intervals not to exceed 100 hours time-in-service (TIS) or 6 months to only intervals not to exceed 6 months, and revise the applicability paragraph by adding certain serial-numbered TGB shafts. The NPRM was prompted by EASA AD 2020-0206, dated September 30, 2020 (EASA AD 2020-0206), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Leonardo S.p.A. Helicopters, formerly Finmeccanica

S.p.A., AgustaWestland S.p.A., Agusta S.p.A.; and AgustaWestland Philadelphia Corporation, formerly Agusta Aerospace Corporation. EASA advises that additional parts may be susceptible to similar occurrences and some TGB shafts could have been reinstalled on a TGB other than the one on which they were initially installed. This condition, if not addressed, could result in failure of the tail rotor, possibly resulting in reduced control of the helicopter.

Accordingly, EASA AD 2020-0206 retains the inspection requirements of EASA AD 2018-0156, dated July 24, 2018, which prompted AD 2020-19-11, for certain part-numbered TGB shafts and revises the definition of an affected part by adding certain serial-numbered TGB shafts.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with the European Union, EASA has notified the FAA about the unsafe condition described in its AD. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these helicopters.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Leonardo Helicopters Alert Service Bulletin No. 119-090, Revision A, dated September 14, 2020. This service information specifies procedures for conducting an endoscope inspection of the internal surface of the TGB output shaft for corrosion. This service information also specifies replacing the TGB if corrosion is found.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Interim Action

The FAA considers this AD to be an interim action.

Differences Between this AD and the EASA AD

EASA AD 2020-0206 uses flight hours to describe one compliance time, whereas this AD uses hours TIS. EASA AD 2020-0206 requires using an endoscope for inspection, whereas this AD requires inspecting with a borescope. EASA AD 2020-0206 defines the affected part as the 90-degree TGB shaft installed on TGB P/N 109-0440-06-01-101, whereas the applicability paragraph of this AD includes TGB P/N 109-0440-06-101 instead.

Costs of Compliance

The FAA estimates that this AD affects 134 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Borescope inspecting the TGB output shaft takes about 3 work-hours for an estimated cost of \$255 per helicopter and \$34,170 for the U.S. fleet per inspection cycle.

Replacing a TGB takes about 18 work-hours and parts cost about \$49,000 (overhauled TGB) for an estimated cost of \$50,530 per helicopter.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, Section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority

because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

- a. Removing Airworthiness Directive 2020-19-11, Amendment 39-21254 (85 FR 59404, September 22, 2020); and

- b. Adding the following new airworthiness directive:

2021-16-06 Leonardo S.p.a.: Amendment 39-21668; Docket No. FAA-2021-0373; Project Identifier MCAI-2020-01352-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2020-19-11, Amendment 39-21254 (85 FR 59404, September 22, 2020).

(c) Applicability

This AD applies to Leonardo S.p.a. Model A119 and AW119 MKII helicopters, certificated in any category, with 90-degree tail rotor gearbox (TGB) part number (P/N) 109-0440-06-101 or 109-0440-06-105, and with TGB shaft P/N 109-0443-03-107 having a serial number (S/N) listed in Table 1 of Leonardo Helicopters Alert Service Bulletin No. 119-090, Revision A, dated September 14, 2020 (ASB 119-090), installed.

Note 1 to paragraph (c): A TGB shaft is also referred to as a mast gear assembly.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6510, Tail Rotor Drive Shaft.

(e) Unsafe Condition

This AD was prompted by two occurrences of corrosion on the internal surface of the TGB shaft. The FAA is issuing this AD to detect corrosion of the TGB shaft. The unsafe condition, if not addressed, could result in failure of the tail rotor, possibly resulting in reduced control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Within 25 hours time-in-service (TIS) or 3 months, whichever occurs first after the effective date of this AD, and thereafter at intervals not to exceed 6 months, borescope inspect the entire internal surface of the TGB shaft for corrosion. Refer to Detail A of Figure 1 of ASB 119-090, for a depiction of the entry point for the borescope. If there is corrosion, before further flight, remove the TGB from service.

(2) As of the effective date of this AD, do not install on any helicopter any TGB P/N 109-0440-06-101 or 109-0440-06-105 that has TGB shaft P/N 109-0443-03-107 having an S/N listed in Table 1 of ASB 119-090, unless the actions required by paragraph (g)(1) of this AD have been accomplished.

(h) Special Flight Permits

A special flight permit may be permitted provided that there are no passengers onboard.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (j)(1) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

(1) For more information about this AD, contact Rao Edupuganti, Aerospace Engineer, Dynamic Systems Section, Technical Innovation Policy Branch, Policy & Innovation Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email rao.edupuganti@faa.gov.

(2) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD 2020-0206, dated September 30, 2020. You may view the EASA AD at <https://www.regulations.gov> in Docket No. FAA-2021-0373.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Leonardo Helicopters Alert Service Bulletin No. 119-090, Revision A, dated September 14, 2020.

(ii) [Reserved]

(3) For service information identified in this AD, contact Leonardo S.p.A. Helicopters, Emanuele Bufano, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-225074; fax +39-0331-229046; or at <https://customerportal.leonardocompany.com/en-US/>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fedreg.legal@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on August 16, 2021.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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